

AGREEMENT FOR ENGINEERING SERVICES

BETWEEN

THE CITY OF WICHITA, KANSAS

and

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

for

INSPECTION OF THE EQUUS BEDS AQUIFER
STORAGE AND RECOVER (ASR) PROJECT

THIS AGREEMENT, made and entered into this ____ day of _____, 2006,
by and between the City of Wichita, Kansas, hereinafter called the "CITY", and
Professional Engineering Consultants, P.A., a Kansas Professional Association, 303
South Topeka, Wichita, Kansas, hereinafter called the "ENGINEER;

WITNESSETH: The City of Wichita, Kansas, Water and Sewer Department is about to
begin construction of several construction projects that are part of Phase I of the Equus
Beds Aquifer Storage and Recovery (ASR) Project. The Project consists of 3 parts
which include:

PART I: over 9 miles of water pipelines, recharge and recovery wells, recharge
basins, control buildings

PART II: a river intake, approximately 14 miles of overhead electrical lines
(12,470 V, three phase)

PART III: a 7 million gallon per day surface water treatment plant

WHEREAS, the CITY recognizes the need to perform Construction Inspection for the
ASR Project;

NOW, THEREFORE, the parties hereto mutually agree that the work specifically to be provided by this AGREEMENT is for the ENGINEER to provide services associated with the Construction Inspection for the ASR Project for Wichita as defined in the following SCOPE OF SERVICES.

I. SCOPE OF SERVICES

A. CONSTRUCTION INSPECTION SERVICES. Will routinely be the responsibility of the ENGINEER's Resident Project Representative.

1. During Construction Provide the Following:

- a. Provide personnel acceptable to the OWNER to perform technical observation during construction of the Project, including a Resident Project Representative (RPR), and such supporting staff as may be required. Through on-site observations of the work in progress and field checks of materials and equipment by the Resident Project Representative and his supporting staff, the ENGINEER will endeavor to provide further protection for the OWNER against defects and deficiencies in the work; but the furnishing of such resident Project representation shall not make the ENGINEER responsible for the Contractor's failure to perform the construction work in accordance with the contract documents.

Parts I and II: The on-site RPR will be required to inspect all work and communicate as needed with the design engineers to report progress, advise of the need for clarifications or adjustments in the work, and other matters.

Part III: The on-site RPR will be required to communicate regularly with the CITY's project manager regarding the project schedule, clarifications, decisions, and directions for the design/build team and assist the CITY as an on-site representative of the CITY's interests.

- b. Supervise inspection and OWNER responsible testing on Parts I and II. Arrange for, conduct (or witness), field and laboratory tests of construction materials as required by the plans and specifications; determine the suitability of materials on the site and brought to the site to be used in the construction; check the construction activities to determine compliance with the intent of the design; measure, compute, or check quantities of work performed and quantities of material in-place for partial and final payments to the Contractor; and maintain diaries and other project records to document the work including photographs.
- c. Prepare elementary and supplementary sketches required and conduct preliminary negotiations necessary to resolve "changed" field conditions encountered.
- d. Review and file all construction schedules, material certifications and detailed shop and erection drawings from the respective project's Contractors and Designers on Parts I and II. Assist the Designers in evaluating the acceptability of all submittals if necessary.
- e. Review and analyze the laboratory, shop and mill test reports of materials and equipment on Parts I and II.
- f. Review and approve contractor pay requests for Parts I and II, and review and advise the CITY on pay requests for Part III.
- g. Provide as-built information to the Designer's Project Manager for preparation of "Record" drawings on Parts I and II.
- h. Prepare independent cost analysis, and conduct preliminary negotiations for all Change Orders on the Project. Submit same to the OWNER'S Project Manager for review and approval.
- i. Participate in all Project meetings.
- j. Provide and submit to the CITY such periodic, intermediate and final reports and records as may be required.

- k. Provide on-site and local transportation for the Resident Project Representative and supporting staff to perform the duties as listed above.
- l. Provide basic testing equipment and supplies for the Resident Project Representative and supporting staff to perform the duties associated with the OWNERS quality assurance testing at the frequency and manner set forth in the specifications.
- m. Provide special field office equipment and all expendable office supplies such as stationery, pencils, report forms, etc., except that the on-site field office, including utilities and furnishings, shall be provided by the OWNER.
- n. Meet with the OWNER as necessary to confer with respect to the duties and project services.
- o. Project laptop computer and electronic Project files will be turned over to the OWNER at the completion of the Project.

II. TIME OF SERVICES

- A. ENGINEER shall commence work on the Project upon receipt of ~~Authorization to Proceed from the OWNER.~~
- B. Completion of services is dependent upon the Contractor's progress and the time frame set forth in the construction contract documents. The fee(s) included in this agreement are based on the following dates:

Construction of the Part I of the Project will begin approximately 1 March 2006, and substantial completion is scheduled for 1 September 2006. Construction of Part II of the Project will begin approximately 30 March 2006 and substantial completion is scheduled for 1 August 2006. Construction of the Part III of the Project is scheduled to begin approximately 1 March 2006 and substantial completion is scheduled for 21 September 2006, and final completion by 23 October 2006.

III. IN ADDITION, THE ENGINEER AGREES

- A. To comply with all Federal, State, and local laws, ordinances, and regulations applicable to the work, including Title VI of the Civil Rights Act of 1964, and the provisions stipulated in Exhibit C titled "Revised Nondiscrimination and Equal Employment Opportunity Statement for Contracts and Agreements."
 - B. To accept compensation for the services herein described in such amounts and at such periods as hereinafter provided and that such compensation shall be satisfactory and sufficient payment for all work performed, equipment or materials used and services rendered in connection with the SCOPE OF SERVICES.
 - C. To save and hold harmless the CITY against all suits, claims, damages and losses for injuries to persons or property arising from or caused by in whole or in part, negligent errors, omissions or acts of ENGINEER, its agents, servants and employees, or subcontractors, occurring in the performance of its services under this contract.
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- D. To maintain books, documents, papers, accounting records and other evidence pertaining to cost incurred by the ENGINEER and, where relevant to method of payment, to make such material available at its office at reasonable times during the contract period, and for two (2) years from the date of final payment under the contract for inspection by the CITY or its authorized representatives.
 - E. ENGINEER shall procure and maintain such insurance as will protect the ENGINEER from damages resulting from negligent errors, omissions, and acts of the ENGINEER, its agents, officers, employees and subcontractors in the performance of the professional services rendered under this AGREEMENT and for which it is legally liable. Such policy of

insurance shall be in an amount not less than \$2,000,000 subject to deductible of \$100,000. In addition, a Workers' Compensation and Employer's Liability Policy shall be procured and maintained. This policy shall include an "all state" endorsement. Said insurance policy shall also cover claims for injury, disease or death of employees arising out of and in the course of their employment which, for any reason, may not fall within the provisions of the Worker's Compensation law. The liability limit shall be not less than:

- Workers' Compensation - Statutory
- Employer's Liability - \$500,000 each accident

Further, a comprehensive general liability policy shall be procured and maintained by the ENGINEER to insure the ENGINEER and the CITY against all claims arising from injuries to persons (other than ENGINEER's employees) or damage to property of the CITY or others arising out of any negligent act or omission of ENGINEER, its agents, officers, employees or subcontractors in the performance of ENGINEER services under this AGREEMENT. The liability limit shall not be less than \$500,000 per occurrence for bodily injury, death and property damage. Satisfactory Certificates of Insurance shall be filed with the CITY prior to the time ENGINEER starts any work under this AGREEMENT. The ENGINEER shall furnish the CITY copies of all insurance policies or certificates of insurance that relate to the insurance policies that must be maintained thereunder.

- F. To designate a Resident Project Representative for the coordination of the work that this AGREEMENT requires to be performed. The ENGINEER shall advise the CITY of any changes in the person(s) designated Resident Project Representative. Written notification shall be

provided to the CITY for any changes exceeding one week in length of time.

IV. THE CITY AGREES

- A. To furnish the ENGINEER for his use all prior available plans, specifications, and data developed relative to the proposed facility including applications, reports, design calculations, drawings, descriptions of existing facilities, and pertinent correspondence with State and Federal agencies, if necessary.
 - B. To provide right of entry for ENGINEER's personnel in performing field operations, inspections and measurements.
 - C. To provide a construction office for the ENGINEER's field personnel assigned to the Project. Provision of a field office shall include all essential utilities and the monthly costs associated therewith.
 - D. To pay the ENGINEER for his services in accordance with the requirements of this AGREEMENT.
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- E. To designate a Project Manager with whom the ENGINEER's Resident Project Representative will communicate and coordinate all activities.
 - F. Provide normal Construction Administration duties through the Project's individual Part's Designers.

V. PAYMENT PROVISIONS

- A. Compensation for services described under Item I., SCOPE OF SERVICES, shall be based on time-related charges or direct expenses described as follows:

Time-related charges shall be the total hours worked on the Project by each employee, multiplied by the hourly rate for that employee's job classification as described by the Contract. The rates are shown on the attached Exhibit A, Fee Estimate.

Time-related charges include salary rates, fringe benefits, general and administrative overhead, and profit. General and administrative overhead includes indirect expenses and costs not identifiable as directly allocable to individual projects. Direct expenses are charges, other than those included in time-related charges, incurred directly for the Project. Profit includes state and federal income taxes, plus profit.

Direct expenses include, but are not limited to:

1. Field testing, and laboratory testing services.
 2. Reproduction services directly applicable to Project such as reproducing drawings, photocopying, printing, and binding.
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3. Communication services directly applicable to Project such as telephone, express delivery, and postage.
 4. Automobile mileage directly applicable to Project at \$0.49 cents per mile.
- B. ENGINEER agrees that the cost for services described in Exhibit A shall not be exceeded and that the time for completion of Project shall be as stated in Section II., B. of the AGREEMENT. ENGINEER shall perform the work specified in the Scope of Services within the cost shown in Exhibit A.

If at any time ENGINEER believes the cost shall be greater than shown in Exhibit A, as a result of a change in the intended scope of services, ENGINEER shall notify the CITY. The notification shall state the revised cost estimate, the revised time for completion, and the reason for the revisions.

CITY shall not be obligated to reimburse ENGINEER for costs incurred in excess of those shown in Exhibit A unless CITY agrees, in writing, to do so. ENGINEER shall not be obligated to continue performance under this AGREEMENT for out of scope services, or otherwise incur costs in excess of the original amount for these services, unless and until the CITY notifies ENGINEER that the approved cost has been increased.

- C. During the progress of work covered by the AGREEMENT, partial payments may be made to the ENGINEER at intervals of one calendar month. Billings submitted during the progress of the work will be paid on the basis of the costs accrued to the Project as described in paragraph A above.
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- D. When requested by the CITY, the ENGINEER will enter into a Supplemental Agreement for additional services related to the Project such as, but not limited to:

- 1. Consultant or witness for the CITY in any litigation, administrative hearing, or other legal proceedings related to the Project.
- 2. Additional inspection and design services not covered by the scope of this AGREEMENT.
- 3. A major change in the scope of services for the Project. If additional work should be necessary, the ENGINEER will be given written notice by the CITY along with a request for an estimate of

the increase necessary in the not-to-exceed fee for performance of such additions. No additional work shall be performed nor shall additional compensation be paid except on the basis of a Supplemental Agreement duly entered into by the parties.

- E. In the event the Contractor fails to complete the Project within the specified Contract time noted in Item II, B., the ENGINEER shall be deemed to be performing "Extra Work" in which case should the maximum contract amount as set forth in Paragraph V. A. above be exceeded, the ENGINEER shall be eligible for additional compensation.

In no case shall additional work be performed or compensation be paid without the written authorization of the OWNER. Any authorization shall first be supported by documentation from the ENGINEER outlining the reasons therefore and the probable maximum fee to be expected. The ENGINEER shall notify the OWNER a minimum of 14 days in advance of any foreseeable need to perform extra work.

VI. THE PARTIES HERETO MUTUALLY AGREE

- A. That the right is reserved to the CITY to terminate this AGREEMENT at any time, upon written notice, in the event the project is to be abandoned or indefinitely postponed, or because of the ENGINEER's inability to proceed with the work, or because the services of the ENGINEER are unsatisfactory, PROCEED, however, that in any case the ENGINEER shall be paid the reasonable value of the services rendered up to the time of termination on the basis of the provisions of this AGREEMENT, but in no case shall payment be more than the ENGINEER's actual costs plus a reasonable profit.

- B. Documents pertaining to the project shall become the property of the CITY upon completion or termination of the ENGINEER's services in accordance with this AGREEMENT. ENGINEER shall be allowed to retain copies of all Project related files and documents. CITY is cautioned that the accuracy of electronic computer files and CADD documents may be compromised by electronic media degradation, errors in format translation, file corruption, printing errors, operator inexperience and file modification. ENGINEER will maintain the original copy which shall serve as the official archived record of the electronic and CADD documents. CITY agrees to hold harmless ENGINEER from any claims arising out of or relating to any unauthorized change or alteration of electronic copies and CADD document.
- C. That the services to be performed by the ENGINEER under the terms of this AGREEMENT are personal and cannot be assigned, sublet or transferred without specific consent of the CITY.
- D. It is further agreed that this AGREEMENT and all contracts entered into ~~under the provisions of this AGREEMENT shall be binding upon the~~ parties hereto and their successors and assigns.
- E. Neither the CITY'S review, approval or acceptance of, nor payment for, any of the work or services required to be performed by the ENGINEER under this AGREEMENT shall be construed to operate as a waiver of any right under this AGREEMENT or any cause of action arising out of the performance of this AGREEMENT.
- F. It is specifically agreed between the parties executing this contract, that it is not intended by any of the provisions of any part of this contract to create the public or any member thereof as a third party beneficiary hereunder, or to authorize anyone not a party to this contract to maintain a suit for damages pursuant to the terms or provisions of this contract.

IN WITNESS WHEREOF, the CITY and the ENGINEER have executed this AGREEMENT as of the date first written above.

CITY OF WICHITA

By: _____
Carlos Mayans, Mayor

SEAL:

ATTEST:

Karen Sublett, City Clerk

Approved as to Form:

Gary Rebenstorf, Director of Law

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

By: _____
Gregg K. Greenwood, P.E.
Vice President

ATTEST:

By: John E. Maltbie, PRES.

ASR CONSTRUCTION INSPECTION MANPOWER AND COST ESTIMATES

MANPOWER ESTIMATE

| <u>PART I</u> | <u>HOURS</u> |
|-----------------------------|------------------|
| Lead Inspector | 545 |
| Inspector | 1100 |
| Inspector/Technician | 505 |
| TOTAL | 2,150 |
| <u>PART II</u> | 445 |
| Lead Inspector | 160 |
| Inspector | 605 |
| TOTAL | |
| <u>PART III</u> | |
| Lead Inspector | 665 |
| <u>PROJECT CLOSEOUT</u> | |
| Lead Inspector | 376 |
| MANPOWER TOTAL | 3,796 |

COST ESTIMATE

| <u>LABOR</u> | <u>ESTIMATED COST</u> |
|--|-------------------------|
| Lead Inspector @ \$68.00/hour | \$138,108.00 |
| Inspector @ \$58.00/hour | \$73,080.00 |
| Inspector/Technician @ \$50.00/hour | \$25,250.00 |
| TOTAL | \$236,438.00 |
| <u>DIRECT COSTS</u> | |
| Mileage 0.49/mile | \$13,475.00 |
| Printing @ cost | \$200.00 |
| Communication Services | \$750.00 |
| Materials Testing Services (see attached unit rates) | \$5,000.00 |
| GRAND TOTAL NOT TO EXCEED | \$255,863.00 |



ALLIED LABORATORIES
DEPARTMENT OF PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

ALLIED LABS FEE SCHEDULE

EFFECTIVE 1 JANUARY 2006

Attachment B

2. EQUIPMENT / MISCELLANEOUS

2.1 VEHICLES

| | |
|---------------------------------------|-----------|
| 2101 Automobiles..... | 0.44 mile |
| 2102 Pickup Trucks, Vans..... | 0.49 mile |
| 2103 Pickup Trucks with Trailers..... | 0.65 mile |

2.2 PER DIEM

| | |
|---------------------------------|-------------|
| 2201 Meals and Incidentals..... | 28.00 day |
| 2202 Lodging..... | Direct Cost |

2.3 EQUIPMENT

| | |
|--|--------------------|
| 2301 Coring Equipment..... | 20.00 hour |
| 2302 Nuclear Gauge | 60.00 day |
| 2303 Concrete Testing Equipment..... | 25.00 day |
| 2304 Schmidt Hammer, James R-Meter | 15.00 hour |
| 2305 Plastic Cylinder Molds | 2.00 each |
| 2306 GPS Equipment..... | 50.00 hour |
| 2307 Other Equipment | (Price on Request) |

2.4 OTHER

| | |
|---|--------------------|
| 2401 Non-Standard Tests | (Price on Request) |
| 2402 CADD Services..... | (Price on Request) |
| 2403 Blueprints, Copies, Film, etc..... | Direct Cost |
| 2404 Shipping Charges, Packaging Materials..... | Cost +10% |
| 2405 Sales Tax..... | Direct Cost |

3. SOILS TESTING

3.1 DRILLING MOBILIZATION

| | |
|--|------------|
| 3101 Drill Rig & Crew (local/base charge)..... | 300.00 day |
| 3102 Drill Rig & Crew Mileage..... | 2.00 mile |
| 3103 Drill Crew Per Diem & Motels | 150.00 day |

3.2 GEOTECHNICAL FIELD EXPLORATION

| | |
|-----------------------------|-------------|
| 3201 Drill Rig & Crew | 170.00 hour |
| 3202 Grout Borings | 3.00 foot |
| 3203 Shelby Tubes..... | 10.00 each |

3.3 LABORATORY SOIL TESTS

| | |
|--|-------------|
| 3301 Moisture Content (ASTM D-2216 / microwave)..... | 10.00 each |
| 3302 Dry Unit Weight (ASTM D-2166) | 25.00 each |
| 3303 Atterberg Limits (ASTM D-4318) | 70.00 each |
| 3304 Material Finer than 200 Sieve (ASTM D-1140)..... | 25.00 each |
| 3305 Unconfined Compressive Strength (ASTM D-2166)..... | 70.00 each |
| 3306 Sieve Analysis (ASTM C-136, C-117) | 40.00 each |
| 3307 Particle Size Analysis of Soils (Hydrometer, ASTM D-422)..... | 120.00 each |



ALLIED LABORATORIES
DEPARTMENT OF PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

ALLIED LABS FEE SCHEDULE

EFFECTIVE 1 JANUARY 2006

Attachment B

| | | |
|------|---|--------------|
| 3308 | Specific Gravity (ASTM D-854) | 100.00 each |
| 3309 | Swell-Consolidation (ASTM D-2435) | 400.00 each |
| 3310 | Falling Head Permeability (ASTM-5084) | 400.00 each |
| 3311 | Constant Head Permeability (ASTM D-2434) | 400.00 each |
| 3312 | Moisture-Density Curves (ASTM D-698/1557) | 120.00 each |
| 3313 | One Point Curve Checks (ASTM D-698/1557) | 50.00 each |
| 3314 | California Bearing Ratio (ASTM D-1883) | 300.00 each |
| 3315 | Relative Density (ASTM D-4253/4254) | 300.00 each |
| 3316 | Lime Determination (ASTM D-4253/4254) | 450.00 each |
| 3317 | Direct Shear (ASTM D-3080) | 350.00 point |

4. AGGREGATE TESTING

4.1 GENERAL

| | | |
|------|--|------------|
| 4101 | Sieve Analysis, less than 1 inch (ASTM C-136/C-117) | 40.00 each |
| 4102 | Specific Gravity and Absorption (ASTM C-127/128) | 55.00 each |
| 4103 | Dry Rodded Unit Weight | 50.00 each |
| 4104 | Moisture Content, ASTM C-566 | 10.00 each |
| 4105 | Deleterious Materials (clay lumps & friable particles, ASTM C-142) | 75.00 each |
| 4106 | Light Weight Pieces / Chert Analysis (ASTM C-123) | 80.00 each |
| 4107 | Flat & Elongated Particles (ASTM D-4791) | 75.00 each |
| 4108 | Organic Impurities, ASTM C-40 | 50.00 each |
| 4109 | Sand Equivalent, ASTM C-2419 | 90.00 each |
| 4110 | Sieve Analysis, greater than 1 inch (ASTM C-136/C-117) | 75.00 each |

4.2 DURABILITY

| | | |
|------|--|-------------|
| 4201 | Sodium / Magnesium Sulfate Soundness (ASTM C-88, 5 cycles) | 150.00 each |
| 4202 | Los Angeles Abrasion (ASTM C-131/ C-535) | 100.00 each |
| 4203 | Freeze-Thaw, KDOT (ASTM Procedure = Price on Request) | 250.00 each |
| 4204 | Alkali-Silica Reactivity (ASTM C-1260) | 400.00 each |

5. ASPHALTIC CONCRETE TESTING

| | | |
|------|---|--------------------|
| 5101 | Extraction Only, ASTM D-2172 | 120.00 each |
| 5102 | Extraction/Gradation, ASTM D-2172, C-136, C117 | 160.00 each |
| 5103 | Ignition Oven Test, with Gradation | 160.00 each |
| 5104 | Marshall Properties, ASTM D-1559 | 30.00 slug |
| 5105 | Cold Feed Gradation | 45.00 each |
| 5106 | Vacuum Specific Gravity | 35.00 each |
| 5107 | Core Density / Thickness Measurement | 20.00 each |
| 5108 | Retained Strength | (Price on Request) |
| 5109 | Asphalt Mix Designs (FAA / KDOT, etc.) | (Price on Request) |
| 5110 | Ignition Oven Test, Asphalt Cement Content only | 120.00 each |

6. PORTLAND CEMENT CONCRETE TESTING

| | | |
|------|--|--------------------|
| 6101 | Compression Tests of Cylinders, ASTM C-39 | 15.00 each |
| 6102 | Flexural Strength of 6" x 6" x 22" beams, ASTM C-78 | 40.00 each |
| 6103 | Compression Tests of 2" x 2" x 2" cubes, ASTM C-109 | 15.00 each |
| 6104 | Concrete Block/Prism Compression Testing, ASTM C-140 | 50.00 each |
| 6105 | Concrete / Mortar / Grout Mix Designs | (Price on Request) |